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July 9, 2010

**Via Email**

Mr. Phil Giudice, Commissioner  
Department of Energy Resources  
Commonwealth of Massachusetts  
100 Cambridge Street, Suite 1020  
Boston, MA 02114

Dear Commissioner Giudice:

With member companies operating biomass plants throughout New England and across the Nation, we are deeply troubled by how the Commonwealth is addressing policy questions around biomass energy, and in particular the "backroom", non-scientific nature of the process. That said, we submit this letter and our comments, as you requested in your letter of June 10, 2010.

As you know, on June 10, 2010, your Department released a study, the so-called "Biomass Sustainability and Carbon Policy Study", authored by Manomet and others at the request of the Commonwealth. Accompanying the Study was a letter to the public, also dated June 10, announcing a series of "public meetings ...to review the Manomet Study and discuss policy implications and options," and promising "a deliberate and open policymaking process...and gain stakeholder input on potential changes to the Renewable Energy Portfolio Standard...." (emphasis added).

The first step in this so-called "deliberate and open policymaking process" was the Commonwealth's decision to receive written comments by July 9, 2010. Two days before these comments were due, and strangely coincidental with a decision to drop a proposed ballot initiative on biomass, your Department was instructed by the Secretary of Energy and Environmental Affairs, Mr. Bowles, to undertake rulemaking immediately, and assure that "certain [c]hanges in policy" be reflected in your rulemaking, based on the very study that we were all asked to provide input on. See Letter to you dated July 7, 2010. In other words, while your Department was seeking input from the public, the Secretary had already written the regulation since he was "confident that we have now have enough information for the Department...to take the next step in changing the way in which the Commonwealth provides incentives for biomass energy." Is this the same "deliberate and open policymaking process" you refer to in your letter of June 10? Or does that process begin once the Secretary has already made his decision on what the rules should say?

Leaving aside a process that is fundamentally unfair, non-transparent, and violative of the spirit and the law of state rulemaking, we are hopeful that your Department will nonetheless allow public participation, and will keep an open mind on a study that we believe is deeply flawed. Towards that end, we share our comments on the study as set forth below.

There are two fundamental flaws underlying the carbon-accounting methodology employed in the study. The authors concede, as they must, that the Study does “not consider non-forest sources of wood biomass (page 6).” In other words, most of the fuel that is used by the biomass industry, which are wastes and residues from non-forest sources, is not considered in the study. By preventing landfilling and open burning of biomass wastes and residues, the biomass industry clearly reduces the greenhouse-gas emissions associated with the disposal of these materials. This has been well documented in a variety of studies.<sup>1</sup> We understand that the DOER wanted to focus this study on the biomass energy industry’s impacts on the state’s forests, however it is important to note that in order to obtain the full range of the waste-disposal benefits that the biomass industry is capable of providing, all of its sources of fuel work together to allow it to operate dynamically, and at the lowest cost to the ratepayers.

The second fundamental flaw in the study is that the forest source of wood biomass considered is limited to a commodity that is produced specifically for energy purposes on a for-profit basis by the landowner. In fact, forest-sourced fuels used for electricity production in the US are not commodities; they are residuals from land-treatment operations of various kinds that are performed for purposes of improving the health and resiliency of the forestland or from forestry residues, resulting from non-energy uses of timber that would have been left to degrade in the forest anyway. The supply curve for forest fuels in any particular region, therefore, can only be understood as a component of the demand curve in the region for the performance of forest-treatment operations. Energy is the lowest-valued use for biomass from the forest. Neither primary harvesting of standing forests, nor forest treatment operations like thinnings, are currently used for the purpose of providing biomass fuels. When any kinds of forestry operations are performed, biomass power producers provide an outlet for any of the biomass material that is removed that has no higher-valued use.

Forest-treatment operations are expensive to perform, and so usually are performed at a lower level than most landowners would like to be able to do. The existence of a market for the biomass residuals of the treatment operations can help to underwrite some of the costs of the treatments, and thus a biomass fuels market can increase the amount of treatment operations that are being performed in a given region. But the fundamental point is that treatments are designed to improve the value of the post-treatment land and its remaining vegetation, and that usually includes improving the vim and vigor of the forest. This perspective leads to far different

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<sup>1</sup> Western Governors’ Association, Clean and Diversified Energy Initiative, *Biomass Task Force Report*, January 2006; Morris, G., *Bioenergy and Greenhouse Gases*, Report of the Pacific Institute, May 15, 2008.

implications for carbon accounting than the perspective that biomass fuels are primary commodities.

In particular, for forest fuels that are strictly residuals, the accounting needs to look at the alternative fate of the residuals if they are not used for fuel, including treatments performed with residuals burned in piles or left in-place, and treatments not performed at all, as well as the fate of the carbon in the biomass used as fuel. The authors of the study recognize this. In a clarification issued on June 21, 2010, Manomet stated "when the wood used to fuel an energy facility is all, or nearly all, logging debris that would have decomposed in the forest anyway, the [carbon] debt period can be relatively short." In other words, forestry residues begin paying climate dividends soon after their use for renewable energy.

It is also important to compare the carbon fate of the forest with and without treatment, recognizing that the treatments lead to higher net biomass growth rates in the remaining forest, and greater resilience to pest and disease outbreaks and fires.

The Manomet study, which treats biomass fuels as primary commodities rather than as residuals, does not consider any of the benefits to the forest that the residuals-creating forest-treatment operations provide. On the contrary, it is focused on the environmental impacts of harvesting forests for the express purposes of energy production. In other words, the carbon benefits (healthier forests) that are the objective of land-treatment operations are not counted, and the only offset to the removal of trees that are converted into fuel that is considered in the paper is the gradual uptake of carbon by a new tree planted where the old one was removed. Under the circumstances, it is not surprising that the study reaches the conclusions it reaches.

We believe that it is important to approach the issue of how the biomass energy industry affects surrounding forestlands with a modicum of common sense. The state of Maine provides an interesting case study. Maine has the country's second largest biomass power industry, which has been in operation for more than 25 years. Not only have Maine's forests not been damaged or degraded because of the operations of the biomass power industry, on the contrary the state's forests are in demonstrably better condition today than they would be if the biomass industry did not exist. Although California's forests are different in many ways than forests in the Northeast, the same is true there. Forests that have provided fuel to the biomass power plants are in much better condition than similar forests that have not received treatment operations. We believe that the proper conclusion is obvious: Forest fuels that are produced as residues or as a byproduct of forestry operations that are performed in accordance with professional forest plans and best practices produce both greenhouse-gas benefits and a variety of non-greenhouse-gas environmental benefits, and the use of these kinds of fuels should be encouraged. Fuels that are produced as the primary product of forest-harvesting operations should not be considered carbon neutral.

In January, 2010, the California Energy Commission published the results of a 4-year, multimillion dollar study performed by the US Forest Service that was a

comprehensive life-cycle analysis of the use of forest residuals for energy production,<sup>2</sup> including lifecycle carbon accounting. It is unexcusable for the the Manomet team to ignore the methodology and results that were developed for this groundbreaking report. The CEC report concluded that the use of forest residuals for energy production actually decreases the amount of greenhouse-gas emissions compared with open burning or rotting of residuals, and compared with not performing the treatments at all, rather leaving the forests in stressed condition.

In conclusion, the two fundamental flaws that plague the Manomet study relegate it to being a study of a fuel source that never has been, and probably never will be used. Nothing in this study should be used to question the legitimate status of biomass-energy production based on waste and residue forms of fuel as a fully-qualified renewable energy resource.

We look forward to working with the Department, and appreciate your careful consideration of our comments.

Sincerely,



Robert Cleaves  
President

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<sup>2</sup> USDA Forest Service, *Biomass to Energy: Forest Management for Wildfire Reduction, Energy Production, and Other Benefits*, PIER Final Project Report, Report no. CEC-500-2009-080, January 2010.